Section 10

Final Interagency Report on the Valuation of Oil Produced from Federal Leases in California

May 16, 1996

Prepared for the Assistant Secretary - Land and Minerals Management and the Director of the Minerals Management Service, United States Department of the Interior

May 16, 1996

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(Appendix 4 is a separate document and must not be released to anyone not involved in this study. It is separate because it quotes information the companies have designated as sensitive. The Departments have agreed not to disclose sensitive information.)

Overview of Findings and Recommendations

Findings:

In June 1994, the Department of Interior (DOI) commissioned an inter-agency team to address possible underpayment of royalties on Federal crude oil production in California. The team concludes that companies often receive gross proceeds higher than oil company posted prices for crude oil produced in California. Since the team was informed by Minerals Management Service (MMS) and California auditors that most Federal royalty payments were based on postings, it follows that royalties have been underpaid. The team's conclusion is based on MMS audits, two consultant studies, and the team's review of oil sales contracts.

During the period under review, the bulk of California crude oil production was not sold. Rather, it was moved through intra-company transfers, straight exchanges, and buy/sell contracts.

Within the context of MMS' regulations:

- *Based on its review of contracts, the team concludes that straight exchanges are not arm's-length sales.*

- *Similarly, the team concludes that buy/sell transfers should not be considered arm's-length sales unless the oil company can establish that there are opposing economic interests in each buy/sell contract and that they really are outright sales.*

For the period 1978 to 1993, the estimated potential collections, including interest, range from $0 to $856 million, depending on whether underpayments are pursued, the approach to oil valuation, the inclusion of Royalty-in-Kind sales, and the impact of prior settlements between MMS and oil companies.

Recommendations:

MMS should concentrate its collection efforts on those companies (about 10) that produce at least 90% of Federal crude oil in California.

For periods beginning March 1, 1988, the team recommends computing royalties owed to the Federal government based on premiums paid on arm's-length contracts for oil produced from the same field or area.

The team recommends minimizing the additional audit work required to collect underpayments by:

- *The Assistant Secretary issuing a royalty "payor letter" ordering the targeted companies to submit all arm's-length contract records for periods in question, and;*

- *MMS reviewing the oil contract documents available through the California Long Beach II litigation.*

Because MMS audited Texaco for 1989 and 1993, it should immediately send Texaco a bill for 1989 and 1993. If MMS chooses to go back at least to 1984, the recommended approach for Shell, which it audited for 1984, is similar to that for Texaco.

For the period before March 1, 1988:

- The Commerce and Energy Department representatives recommend using adjusted Alaska North Slope oil market prices as the basis for valuing Federal crude oil in California for royalty purposes. They recommend pursuing royalty underpayments from 1980 forward.

- The MMS/Solicitor's Office representatives recommend applying the same procedures as used for the post-March 1, 1988 period for pursuing royalty underpayments. They also recommend that MMS management, in consultation with the Solicitor's Office and the Justice Department, make the decision about how far back to pursue royalty underpayments.

The team recommends that MMS' oil royalty valuation regulations be revised to consider alternatives to reliance on posted prices and to modify a number of definitions and instructions that may hamper royalty collection.

I. EXECUTIVE SUMMARY

Events Leading to Team Formation

The issue of whether major California oil companies underpaid royalties on crude oil by basing those royalties on unreasonably low posted prices[1] goes back many years. The State of California (State) and the City of Long Beach (City), in very lengthy litigation against seven major integrated oil companies operating in California, obtained an extensive body of company documents covering the 1970's and 1980's. Long Beach documents show that major oil companies often bought and sold crude oil at premiums over posted prices.

In 1986, the Minerals Management Service (MMS) reviewed the California oil undervaluation matter with State officials and concluded that posted prices fairly represented royalty value. However, by 1991, ARCO, Shell, Chevron, Mobil, Texaco and Unocal settled for approximately $345 million (of which $320 million was in cash) to end the actions alleging undervaluation on State and City leases. Dollar amounts cannot be tied to specific findings,

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[1]Traditionally, oil posted prices represented prices oil purchasers were willing to pay for particular crude oils in specific areas. Since they often provided the basis for arm's-length purchases and sales, they generally were considered to be representative of market value. But in recent years, posted prices have been increasingly criticized in a number of States as not being representative of the true market value of crude oil.

and issues other than valuation were involved.

In late 1993, in light of these settlements, MMS roughly estimated the size of any potential Federal royalty underpayments and decided the amounts warranted further analysis. The MMS Director consulted with State officials; they agreed that MMS should seek input from other agencies and the State would assist in gaining access to the company documents under court seal.

Interagency Team Formation and Composition

In June 1994, the Department of the Interior (Department) formed an interagency team (team). It included one member each from the Department of Energy, the Department of Commerce, the Department of Justice's Antitrust Division, and the Department's Solicitor's Office, and two MMS employees. Various individuals have represented the State at many of the team's meetings.

Review of MMS Royalty Valuation Regulations

The team reviewed MMS' royalty valuation regulations because a determination of the adequacy of Federal California royalty payments must be made under these regulations. MMS revised its royalty valuation regulations on March 1, 1988. Prior to 1988, MMS' royalty valuation regulations were almost identical to Federal lease terms. Neither these regulations nor the lease terms provide separate directives for valuation under arm's-length and non-arm's-length contracts. Both these regulations and the lease terms set gross proceeds as minimum royalty value. When MMS revised its regulations in 1988, it added specific guidance for valuing oil not sold under arm's-length contracts.

MMS set benchmarks that direct MMS to rely on arm's-length contracts for sales and purchases of oil produced from the same field or area as the oil being valued. This is particularly relevant in California, because most oil produced by integrated oil companies is not sold at arm's-length. The revised regulations maintained the principle that gross proceeds are minimum value for oil sold under both non-arm's-length and arm's-length contracts.

Review of Oil Company Records Under Court Seal

The Departments of Commerce, Energy and Interior (Departments) and eight major oil companies drafted a confidentiality agreement enabling the team to review the records under court seal. These documents showed that the major California oil companies often sold, purchased and valued (for non-royalty purposes) crude oil at premiums over posted prices.

Team Recommends Test Audits

After its first examination of selected court-sealed documents, the team recommended that MMS examine records for one or more oil companies. MMS was to determine if premia over posted prices were paid for Federal oil, and if such premia existed, to determine if Federal royalties reflected these premia. These audits were to review the lessee's gross proceeds based on the first arm's-length sale by the producing company or its affiliate. MMS audited Texaco's records for 1989 and 1993 and Shell's for 1984. The audits confirmed the presence of premia over postings in both Texaco and Shell transactions.

Consultant Contracts

While the audit was underway, MMS retained two consultants with experience in the California oil market. The consultants concluded that the largest underpricing occurred from 1980 to the 1986 oil price crash. One consultant concluded:

- In 1984, posted prices for California crude oils were underpriced between $2.00 and $3.00 per barrel, and
- In 1989, posted prices were underpriced from $0.50 to $1.00 per barrel.

The second consultant employed California spot market prices for Alaska North Slope (ANS) oil for establishing the value of indigenous California crude oil. The finding was that after adjusting for quality and location differences, open-market prices for ANS crude oil exceeded postings for California crude oil by about $3 to $6 per barrel from 1980 to the 1986 oil price crash, and $1 to $1.40 from 1986 to 1993.

Options for Underpayment Valuation

At the MMS Director's request, the team developed a list of options for collecting additional royalties that may be due. The team addressed the ten companies with the most Federal California oil production for the period 1978 to 1993. The estimates of potential collections of royalty and interest ranged from no collections to $856 million, depending on the option selected. The $856 million and all other estimates included some oil taken in-kind by MMS and subsequently sold. Therefore, the estimates exceed the amounts that might be collectible from the ten producers. (The team did not investigate recovering underpayments from Royalty-in-Kind purchasers.) Furthermore, these estimates did not consider the fact that settlements between MMS and some of the companies may have foreclosed further collections.

<u>Team's Overall Findings</u>

A large proportion of California oil production is either exchanged between the major integrated firms or moves internally between their affiliates. For the relatively small volume of oil that was sold or purchased outright, payment of premiums above posted prices occurred frequently. Further, auditors informed the team that lessees usually paid royalties on posted prices. To the extent that this is true, lessees' royalty payments on arm's-length sales reflected less than their gross proceeds. Also, oil not sold under an arm's-length contract was often undervalued for Federal royalty purposes because, at a minimum, it did not reflect the price received for oil produced from the same field or area and sold under arm's-length contracts.

Few of the various types of contracts used in the California oil market appear to be arm's-length. Clearly, outright sales of oil are at arm's-length. However, the bulk of California production is disposed of under intra-company transfers, straight exchanges and buy/sell contracts.[2]

Based on its review of MMS' regulations and company records, the team does not consider straight exchanges as arm's-length contracts. The team also reviewed several buy/sell contracts, and they do not appear to qualify as arm's-length sales or purchases. That is, as required by MMS' definition of an arm's-length contract, the condition of "opposing economic interest" regarding the contract was not apparent. Rather, they appear to be trades for the mutual benefit of both parties, not unlike straight exchanges where a price is not specified.

Also, straight exchanges are not actual sales, nor do the buy/sell contracts the team reviewed appear to be actual sales. Under MMS' royalty valuation regulations, this provides an additional reason to use the benchmarks to value oil transferred under these transactions.

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[2]Under straight exchanges, two oil companies exchange oil for locational advantages. The exchange contract does not reference a price. A buy/sell contract is a contract where the first party agrees to deliver a fixed volume of production to the second party at a certain location, and the second party agrees to deliver the same volume to the first party at some other location. Prices are fixed in the contract for both transactions; both prices may be the same and separate charges for location differentials may be included, or the prices may differ to reflect transportation or other considerations. However, the prices may not represent reasonable value because any price may be used as long as the difference properly reflects the _relative_ value of the crude oils being traded.

Recommended Approach for Post-3/1/88 Time Periods

Under MMS' regulations, the minimum value for all royalty payments, including those for oil not sold under an arm's-length contract, is gross proceeds. Furthermore, oil not sold under an arm's-length contract should be valued based on the volume-weighted average price for arm's-length purchases and sales of oil from the same field or area. MMS should concentrate its collection efforts on the ten or so oil companies that produce about 90 percent of California's Federal crude oil, as follows:

- MMS should use the first benchmark at 30 CFR § 206.102(c)(1) to calculate, on a company-by-company basis, the volume-weighted average premium over posted prices to value that company's non-arm's-length transactions.

- The premium would be based only on arm's-length sales.

- Federal oil sold at arm's length would be valued based on the lessee's gross proceeds, including any premia.

- For oil not sold at arm's-length, gross proceeds also establishes minimum value.

- MMS would pursue collection on a company-by-company basis.

- If the first benchmark is not applicable, the oil would be valued under the first applicable following benchmark.

The team recommends minimizing the additional audit work required to collect underpayments by:

- Having the Assistant Secretary issue a royalty "payor letter" ordering the targeted companies to submit all arm's-length contract records for the company and all its affiliates for periods in question, and:

- Reviewing the documents available through the California Long Beach litigation. The purpose of this review is to identify those contracts and other documents that should be made available by companies at the outset of any additional audit work.

To initiate collection, in general, the team recommends:

- Once sufficient information has been obtained and any necessary additional audit work performed for the selected period, MMS should send the company an issue letter describing any problems found. This would serve to crystallize the issues and dollar amounts involved, give each company an opportunity to respond, and set the stage for either a final MMS demand or negotiations.

- MMS should be prepared to issue a bill for unpaid royalties soon after receipt of the company's response to the above issue letter. Depending on the individual circumstances, MMS' demand letter may include a restructured accounting order.

- MMS should allow the reasonable, actual transportation costs associated with specific crude oil transportation.

- Because MMS audited Texaco for 1989 and 1993, the recommended procedure varies from the general recommendation. MMS should immediately send Texaco an issue letter including proposed bill amounts for 1989 and 1993. In addition, the Department should send the "payor letter" to Texaco covering all relevant years other than 1989 and 1993. Once Texaco is given reasonable time to respond, MMS should then issue a billing for 1989 and 1993. If the other information received from Texaco is insufficient or untimely, MMS should issue a restructured accounting order for the rest of the selected period.

- If MMS chooses to go back at least to 1984, the recommended approach for Shell is similar to that for Texaco.

<u>Recommended Approach for the Pre-3/1/88 Period</u>

Team members differ on the recommendation for assessing and collecting royalty underpayments for the period prior to March 1, 1988. The differences relate to opinions about the latitude allowed under the pre-1988 regulations to establish royalty value for Federal crude oil.

- The Energy and Commerce Department representatives take the position that the pre-1988 regulations allow MMS to establish value, at least for royalty payors that are also refiners, in accordance with the refining industry's own methods of establishing relative value. That is, the true value of California crude oil to most of the larger royalty payors (who are refiners) should be established in a direct, quality-and-transportation-adjusted comparison to Alaskan North Slope (ANS) crude oil. This is significant because during the period under review ANS crude oil accounted for 30% to 45% of the crude oil refined in California. These representatives concluded that the team's review of refiner/producers' internal valuation procedures, their trading practices, their use and control of proprietary transportation systems, and the history of their market activities provide ample "reasons to the contrary" for looking past the limited arms-length contracts available for review in the pre-1988 period.

- The Department representatives believe that the pre-1988 regulations are, in principle, the same as the post-1988 regulations. Their recommended approach is the same as applied to the post-1988 period. The primary reasons are that both regulations rely on prices paid or offered in the same field or area as the lessee's production, and they state that royalty is not to be less than the gross proceeds accruing to the lessee from the sale of its production. The Department representatives believe that their recommended approach is consistent with long-established practices and interpretation of the valuation regulations.

<u>Recommended Time Periods for Pursuing Royalty Collections</u>

The team could not reach consensus on the issue of how far back MMS should attempt to collect additional royalties and interest:

- The Energy and Commerce representatives recommend initiating collection from 1980 forward. Of the potentially recoverable royalties and interest attributable to undervaluation during 1978-1993, 63 to 74 percent is associated with the 1980 to 1985 period. Therefore, to insure that the Federal Government obtains a reasonable part of the amount it should have been paid, collection attempts should reach back to 1980.

  Due to different court decisions on the matter, the applicability of the statute of limitations is, at best, unresolved. In addition, the Department argued in court that the statute of limitations does not apply to royalty underpayments. Therefore, any policy decision based solely on statute of limitations considerations limiting collections to a small part of what might be recoverable is not consistent with the

Department's position, and may not be required by the courts.

- The Department representatives are not making a specific recommendation on how far back collections should be attempted. Instead, they believe this decision should be made by MMS' management in consultation with the Solicitor's Office and the Department of Justice. The final decision should not be based just on potential royalties due each year, but should also consider year-by-year collection risks and other impacts on MMS' programs.

Revisions to Current MMS Oil Royalty Valuation Regulations

The team recommends that MMS' royalty valuation regulations be revised to consider alternatives to reliance on posted prices. Other specific recommendations are in the main report and include:

- Revise definition of marketing affiliate

- Define the term "significant quantities"

- Address the arm's-length/non-arm's-length nature of exchanges

II. HISTORY OF ISSUE/INTERAGENCY TEAM

A. Events Leading to Team Formation

The question of potential Federal oil royalty underpayment in California goes back many years. The issue is the relationship of oil posted prices[3] to royalty value--whether major California oil companies established posted prices at inappropriately low levels and, by paying royalties based on such prices, underpaid their royalty obligations.

In 1975, the State of California (State) and the City of Long Beach (City) began what would turn into very lengthy litigation against seven major integrated oil companies operating in

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[3]Traditionally, oil posted prices represented prices oil purchasers were willing to pay for particular crude oils in specific areas. Since they often provided the basis for arm's-length purchases and sales, they generally were considered to be representative of market value. Posted prices, as well as other arm's-length contract prices, factored heavily into the revised MMS oil product valuation rules that went into effect March 1, 1988. But in recent years, posted prices have been increasingly criticized in a number of States as not being representative of the true market value of crude oil. For example, in 1995 the Texas General Land Office sued several major oil companies, alleging that they based royalty payments on posted prices known to be below a fair market price. Also, the States of Colorado, New Mexico, and Texas recently commissioned a study by Summit Resource Management, Inc., to analyze crude oil royalty payments in those States. The study concluded that most of the major oil companies have apparently paid their royalties based on postings, but that the posting used by most companies is considerably less than the true value of the oil.

California. They initially alleged that these companies had conspired to keep posted prices low and that the State and City had been damaged because oil revenues from their lands depended on posted prices. The State alleged that evidence collected in the case indicated companies operated a dual pricing system that involved trading oil among themselves at effective values higher than posting for much of the 1960's and early 1970's. An extensive body of company materials covering the 1980's showed that major companies often bought and sold crude oil at premiums over posted prices.

After protracted litigation covering the periods 1971-77 (Long Beach I) and 1980-89 (Long Beach II), six of the companies involved (ARCO, Shell, Chevron, Mobil, Texaco and Unocal) reached monetary settlements of approximately $345 million (of which $320 million was in cash) to end the actions alleging undervaluation on State and City leases.[4] Dollar amounts cannot be tied to specific findings, and issues other than valuation were involved.

In 1986, as the State and City litigation continued, MMS contacted State officials and other sources to obtain information to assess the appropriateness of posted prices as the royalty value basis. After its review, MMS concluded that posted prices fairly represented royalty value. At the time, MMS did not conduct an extensive review of the evidence being gathered in the State's case against the companies. Rather, the fact that the

[4]ARCO negotiated a settlement in 1984, and five companies settled in 1991. The remaining company chose to continue in court and has thus far been successful.

State and City thus far had been unsuccessful in their antitrust claims in court weighed heavily in MMS' decision. At about the same time the Justice Department looked into the issue and chose not to pursue an investigation.

In late 1993, in light of the settlements between the companies and the State/City, MMS performed a scoping exercise to estimate the size of any potential Federal royalty underpayments. Using rough per-barrel undervaluation estimates from the State/City legal counsel and their consultants, MMS decided the potential amounts warranted further analysis of the issue. Using publicly-available information, the MMS performed additional studies for the period 1986 forward. The preliminary conclusions were that, based on the information available, MMS could not definitively state that postings were underpriced or that royalties had been underpaid. But before reaching any final conclusion, the MMS Director consulted with State officials. They agreed that MMS should seek additional input from other agencies, and the State would assist MMS in gaining access to the court-sealed contract records the State had gathered in the course of the Long Beach II litigation. The Department and the interagency team (team) then pursued acquisition of the court-sealed data.

B. Interagency Team Formation and Composition

In their discussions, MMS and the State agreed that the Department of Energy and the Department of Justice could bring valuable experience and insight to the issue. So, as originally composed in June 1994, the team included:

- A member from the Department of Energy who has long experience in the issue;
- A lawyer from the Department of Justice's Antitrust Division;
- Two MMS employees with significant experience in the issue; and
- A lawyer from the Interior Department's Solicitor's Office for advice on various issues.

A Commerce Department employee with significant related experience then volunteered and became the final team member. In addition, various individuals have represented the State in many of the team's working meetings.[5]

C. Team Mission

As stated by the team leader in an October 28, 1994, memorandum to team members,

> Our purpose is to obtain any additional data that would enable MMS to determine conclusively whether the posted prices used by the major oil companies in California to

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[5]As of the team's most recent presentation in December 1995 in Washington, the Department of Justice representative "resigned" from the team. She indicated that since the issues the team is dealing with don't involve antitrust, there was little purpose for her participation.

value crude oil from Federal leases reflect market value. To accomplish this, we have agreed to do at least the following:

1) Review documents under court seal at the law firm of Hoecker, McMahon, et. al. related to the State of California/City of Long Beach litigation against the majors. As of October 26, 1994, all companies except Union had agreed to let us review these documents[6].

2) Interview auditors with the California Controller's Office regarding their past and ongoing audits as related to oil valuation.

Regarding item (1), we would share any apparent evidence of undervaluation with the Interior Department Solicitor's office for recommendations on further action. For item (2), if discussions with the California auditors and/or review of their data lead us to believe that further audits should be conducted, we would define the needed resources and request them through the Associate Director for Royalty Management. If the Associate Director agrees that additional audits should be conducted, MMS will conduct these audits or have them conducted by State or contract auditors.

The memorandum cited the MMS oil valuation regulations at 30 CFR § 206.102 as a controlling factor in the team's activities.

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[6]The review of the documents was significant because they could reveal contractual data regarding the valuation of crude oil for royalty purposes and allow the team to share evidence concerning undervaluation with MMS auditors and the Interior Department's Solicitor.

III. SUMMARY OF TEAM ACTIVITIES

A. Review of MMS Royalty Valuation Regulations

1) General

The problem of valuing California crude oil under MMS' royalty valuation regulations is complicated by two factors. First, most oil from Federal oil and gas leases is produced by integrated companies that transfer production from their production arm to a trading or refining arm. After this initial non-arm's-length transfer, oil produced from Federal leases loses its identity in companies' accounting systems so that its price in subsequent transfers cannot usually be determined. Second, most subsequent transfers by integrated companies are exchanges of one type or another. Some of these are simply to accomplish transportation on California integrated refiners' pipelines, while others are to obtain crude oil in locations that are more favorable to both exchange partners. In some exchanges (which we call straight or pure exchanges), contracts do not specify a price for the crude oil but only provide for a location differential to be paid by one of the parties. In other cases (termed buy/sells) contracts specify both a purchase and a sales price, and often include a location differential as well.

The team devoted considerable time to evaluation of MMS' valuation regulations because a determination of the adequacy of California company royalty payments must be made in the context of applicable MMS regulations. MMS' royalty valuation regulations were revised in 1988, dividing the period the team reviewed into two parts. Prior to March 1, 1988, MMS' royalty valuation regulations were at 30 CFR § 206.103 for onshore leases and at 30 CFR § 206.150 for offshore leases. 30 CFR § 206.103 stated:

> The value of production, for the purpose of computing royalty, shall be the estimated reasonable value of the product as determined by the Associate Director due consideration being given to the highest price paid for a part or for a majority of production of like quality in the same field, to the price received by the lessee, to posted prices, and to other relevant matters. Under no circumstances shall the value of production . . . be less than the gross proceeds accruing to the lessee . . . or less than the value computed on such reasonable unit value as shall have been determined by the Secretary. In the absence of good reason to the contrary, value computed on the basis of the highest price per barrel, . . . paid or offered at the time of production in a fair and open market for the major portion of like-quality oil, . . . produced and sold from the field or area where the leased lands are situated will be considered to be a reasonable value.

30 CFR § 206.150 contained similar directives. However, it also directed MMS to consider regulated prices. This regulation is quoted in Appendix 1. 30 CFR § 206.103 was promulgated in similar form in 1942 and 30 CFR § 206.150 was promulgated in 1954. The royalty valuation lease terms for both onshore and offshore Federal oil and gas leases are almost identical to these regulations.

Neither these regulations nor the lease terms provide separate directives for valuation under arm's-length and non-arm's-length contracts. Both of these regulations set gross proceeds as minimum value and instruct MMS to consider posted prices as well as actual purchases and sales for oil produced from the same field or area in determining royalty value. Also, 30 CFR § 206.103 specifically relies on prices offered in "a fair and open market" for oil produced from the same field or area. Thus, in establishing royalty value, the regulations and lease terms emphasize the use of arm's-length contracts for oil produced from the same field or area as the oil being valued. Additional flexibility is imparted by including other relevant matters.

When MMS revised its regulations in 1988, it added specific guidance for valuing oil not sold under arm's-length contracts. This is particularly relevant in California, because most oil is produced by integrated oil companies that "sell" it to their trading or refining affiliates. Although the revised regulations maintained the principle that gross proceeds are minimum value for oil sold under both non-arm's-length and arm's-length contracts, they seemed to afford posted prices a more prominent role in valuing non-arm's-length sales. In valuing oil not sold under arm's-length contracts, the revised regulations continue to direct MMS to rely on arm's-length contracts for sales and purchases of oil produced from the same field or area as the oil being valued.

Specifically, on and after March 1, 1988, the present 30 CFR § 206.102(b) provides that crude oil sold under an arm's-length contract will be valued at the gross proceeds accruing to the lessee under the contract. However, if the contract does not reflect the total consideration transferred from buyer to seller, MMS may require that value be established under its benchmarks (discussed below) used to value production not sold at arm's length. Regardless, value cannot be less than total consideration accruing to the lessee. 30 CFR § 206.102(b)(1)(ii). Furthermore, if MMS determines that the gross proceeds accruing to the lessee do not reflect the reasonable value of production due to misconduct or the lessee's failure to market the production for the mutual benefit of the lessor and lessee, MMS shall require that the production be valued under its benchmarks. 30 CFR § 206.102(b)(1)(iii).

If crude oil is not sold under an arm's-length contract, the present 30 CFR § 206.102 (c) provides that value shall be determined according to the first applicable of a series of specific "benchmarks" listed in a prescribed order. The first benchmark is a key to the present analysis. It establishes value as:

> The lessee's contemporaneous posted prices or oil sales contract prices used in arm's-length transactions for purchases or sales of significant quantities of like-quality oil in the same field . . . [or, if necessary, area]; provided, however, that those posted prices or oil sales contract prices are comparable to other contemporaneous posted prices or oil sales contract prices used in arm's-length transactions for purchases or sales of significant quantities of like-quality oil in the same field . . . [or, if necessary, area]. . . . If the lessee makes arm's-length purchases or sales at different postings or prices, then the volume-weighted average price for the purchases or sales for the production month will be used.

30 CFR § 206.102(c)(1).

This benchmark requires a double "significant quantities" test. For a company to use its own postings or oil sales contract prices for crude oil it bought or sold at arm's-length as the value of crude oil not sold at arm's-length, both the arm's-length postings or oil sales contract prices to be used as the measure of value and the arm's-length postings or oil sales contract prices to which they are comparable must be for "significant quantities." Finally, if there are multiple postings or oil sales contract prices for arm's-length transactions, then the lessee must use the volume-weighted average of those prices.

If the required elements of the first benchmark are not met, then the regulation directs MMS to proceed to subsequent benchmarks. See Appendix 1 for a complete discussion of the regulation. Ultimately, if the benchmarks relying on arm's-length postings, oil sales contract prices, or spot prices fail, then value may be determined according to other relevant matters, or finally a "net-back method or any other reasonable method to determine value."

2) Arm's-Length Transactions/Exchanges

The team considered what type of transactions are at arm's-length under the regulations. Its review considered an MMS Director's decision, Cities Service Oil and Gas Corp., MMS-86-0538-O&G. The MMS Director found that in buy/sells, the price between unrelated oil companies is not necessarily the fair market value of crude oil. This decision is discussed in detail in Appendix 2.

Clearly, outright sales of oil are at arm's-length. However, the bulk of California production is disposed of under straight exchanges and buy/sell agreements. The team does not regard straight exchanges as arm's-length contracts. Additionally, the MMS Payor Handbook, Volume III, Part 3, treats straight exchanges as non-arm's-length contracts.

The team reviewed a number of buy/sell contracts[7] available from the State, and they did not appear to be outright arm's-length sales/purchases. That is, the condition of "opposing economic interest" regarding the contract wasn't apparent[8] and/or they simply didn't appear to be sales or purchases in the conventional sense. Rather, they generally appeared to be trades for mutual location/transportation benefits not unlike pure exchanges where no prices are specified.

The price reference in the buy/sell agreements the team reviewed

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[7]"Buy/sell contract" as used here means a contract where the first party agrees to deliver a fixed volume of production to the second party at a certain location, and the second party agrees to deliver the same volume to the first party at some other location. Prices are fixed in the contract for both transactions: both prices may be the same and separate charges for location differentials may be included, or the prices may differ to reflect transportation or other considerations.

[8]According to the MMS regulations at 30 CFR § 206.101, for a contract to be arm's length it must be arrived at in the market place between independent, nonaffiliated persons with opposing economic interests regarding that contract.

appears to establish a price differential between two crude oils rather than to establish the underlying price. Therefore, the team does not believe that the contracts it reviewed are true arm's-length purchase or sales agreements according to MMS' valuation rules.

B. Confidentiality Agreement

As referenced earlier, discussions between the MMS Director and State officials led to an agreement that the State would assist MMS in obtaining oil company records the State obtained through discovery during its Long Beach II litigation. The California court had placed these documents under seal because the oil companies alleged that these documents contained proprietary information. The team decided that it was critical to review these voluminous records, but due to the court's seal, California's lawyers could not immediately provide them.

With the aid of California's lawyers, the team entered into negotiations with eight major oil companies to obtain access to their documents under seal. The parties drafted a confidentiality agreement enabling the team to review the sealed records. The process started in July 1994. In October 1994, the Departments of Commerce, Energy and Interior (Departments) and the eight oil companies reached an agreement permitting the Departments to review the sealed documents these companies submitted during the Long Beach II discovery process. The Department of Justice did not enter into the confidentiality agreement, and therefore did not review the Long Beach II records during this investigation. Under the confidentiality agreement, the Departments are only permitted to share the documents with persons employed by the Departments who are working on this review. However, the confidentiality agreement does not prohibit the Departments from providing reports derived from the sealed records to employees or agents of the State or City who have access to the sealed documents.

C. <u>Visit to Hoecker McMahon and Buck Law offices</u>

The team arranged to examine a sample of documents from the <u>Long Beach II</u> files in December 1994. Team members met in Los Angeles at the office of attorneys (Hoecker, McMahon, and Buck) hired by the State of California in the <u>Long Beach</u> litigation. The team was shown oil sales and exchange contracts and other internal company correspondence demonstrating that California crude oil often was sold or valued for non-royalty purposes at prices higher than posted prices. Many of these documents were contracts wherein sales or purchase prices included premiums over posted prices. In the simplest of cases, the premium was explicit in the contract; in other cases it was apparent that a premium was included as transportation charges, quality adjustments, handling fees, or some mix of these and other factors.

D. <u>Visit to State Controller's Office</u>

The team also visited with the California State Controller's Office in Sacramento. As part of their functions, State auditors review royalty payments made under Federal onshore and 8(g)[9] leases in California. MMS provides funding for this work. The auditors briefed team members on the workings of their audit program. MMS regulations guide their oil royalty valuation reviews, and accordingly the posted price was one factor looked to by the auditors as a means of evaluating the royalty payments received. However, the State auditors were concerned about the validity of posted prices and agreed that California posted prices alone are not a valid means for assessing the value of California crude oil. In reviewing lessees' gross proceeds, State auditors found instances of premiums over postings which added to their concern about the proper method of valuing California crude oil. Accordingly, the State Controller's Office reserved the issue of undervaluation of crude oil in all of its audit documents because "California product value determination issues have not been finalized."

The State auditors continued to make efforts to capture some of the royalty undervaluation by applying the gross proceeds method to arm's-length sales by the marketing arms. Their efforts were hampered by company refusals to turn over documents about sales by their marketing arms. The State auditors expressed hope that this issue, which was being reviewed by Federal courts in the 10th Circuit and District of Delaware, would be resolved soon.

The MMS invited a representative of the California State

[9]Refers to Section 8(g) of the Outer Continental Lands Act under which coastal states share in a percentage of royalties from certain Federal leases on the Outer Continental Shelf.

Controller's Office to attend team meetings as an observer.

E. Team Recommends Test Audits

After examining the documents from the Long Beach II files, the team recommended that MMS auditors examine records for one or more companies on a sample basis. The audit objective was to determine if sales and purchase contracts involving Federal oil contained premiums over posted prices, and if such premiums exist, to determine if Federal royalty payments reflected these additional premiums. The team recommended that these audits not stop at the first transaction between affiliates. Rather, the lessee's gross proceeds were to be tested by the first arm's-length sale by the affiliate. The team also considered time periods these audits should cover and which companies should be audited.

The team recommended audits of a sample year before and after (1) the 1985/86 oil price crash, and (2) MMS's revised oil valuation regulations took effect in 1988. The team recommended Texaco as one candidate. It always has been a large purchaser and a seller of crude in California, and its acquisition of Getty Oil in 1984 expanded its marketing activities. Thus, the team recommended an audit to cover Texaco's records in 1989 because it determined that this information could provide a good view of State-wide trading activity.

To determine how the price crash of 1986 affected the premia paid over postings for crude oil, the 1984-85 period was chosen for review. Again, Texaco would have been a good candidate except that its acquisition of Getty was in process during this period. The team then looked to Shell Oil because it was, and continues to be, the largest crude oil producer in the State and the largest royalty payor to the Federal Government. Despite a potential legal problem with obtaining Shell's documents, the team recommended that Shell be examined for 1984.[10]

In March 1995, MMS audit staff began their audit of Texaco. They decided to examine contracts for 1993, in addition to those for 1989 production, to obtain a more current picture of Texaco's royalty valuation procedures. Audit progress was slowed by Texaco's internal authorization process for accessing documents requested by the MMS auditors.

MMS initially delayed the audit process for Shell while the IBLA reconsidered its earlier decision involving Shell's disposition of production to its marketing affiliate, Shell Oil Company. MMS believed its case would be strengthened if the IBLA ruled that an affiliate's sales contracts could be reviewed by MMS when it was trying to determine if the lessee met the minimum

[10]The problem was due to the Department's Interior Board of Land Appeals holding that an affiliate's sales contracts could not be reviewed by MMS when it was trying to determine if the lessee met the min: :m requirement that royalties be based on gross proceeds. S 1 Oil Co., 130 IBLA 93 (1994). The IBLA reversed its decis. : in May 1995 and ruled that MMS could look at affiliate records. Shell Oil Co., 132 IBLA 354 (1995) (See Appendix 1, part D. for details of this case). Shell sought review of IBLA's decision in Federal court. The case is pending in the U.S. District Court, District of Delaware.

requirement that royalties be based on gross proceeds. The IBLA reversed its decision in May 1995 and ruled that MMS could look at affiliate records.

After the IBLA reversed its decision on Shell, the audit process was delayed further because Shell claimed that its contract records from 1984, except for its Long Beach II files, had been scheduled for destruction. After several follow-up inquiries by MMS, Shell found some of these records. Auditors have examined the contracts Shell made available.

Both the Shell and Texaco audits requested to support this effort have been performed. Subsequent audits may be carried out in conjunction with collection activity.

F. Innovation & Information Consultants, Inc. (IIC) Contract

While the audit process was underway, the team suggested that it would be beneficial for MMS to retain experts the State hired for the Long Beach II litigation. IIC was heavily involved in analyzing oil sales contracts for the State/City litigation and maintained an extensive data base of contracts and other company correspondence that had been obtained in the Long Beach cases. The team felt that utilization of IIC's knowledge and experience could supplement the MMS audit effort and potentially provide backup records if the auditors were unsuccessful in obtaining them from the companies.

MMS retained IIC to provide and catalog Texaco's 1989 and Shell's

1984 California oil contracts. The agreement also requested IIC's advice to the team and MMS auditors in interpreting the contracts and investigating California crude oil undervaluation.

In addition to MMS' contractual requirements, IIC provided two reports outlining Texaco's and Shell's marketing activities in California. The reports summarize the companies' production, refinery needs, sales, purchases, and exchanges. They also address the transportation advantage/disadvantage each company faced. In short, these reports were very useful to the auditors and team in performing their work.

In the course of their work for the Long Beach II litigation, IIC developed an extensive data base of oil contract premia. This is a computer file giving estimates of the premia over posted prices contained in hundreds of California contracts. Information included contract number, trading partner names, type of crude oil, date of contract origination, volumes, and other useful information. These estimates were based on the defendants' transactions involving California crude oil where premia were involved.

The team made extensive use of IIC's contract premia data base. Some of the IIC estimates were validated by team members (see discussion below). The team employed part of this data base late in the study to estimate potential California royalty underpayment amounts that the Federal Government might be able to recover under some of the collection options outlined by the team. These options are discussed in Appendix 3.

G. Micronomics Contract

Simultaneous with the contract undertaken with IIC, MMS consulted with Micronomics Inc., which also had assisted the State in their lawsuits. The idea was to tap into other expertise in valuing crude oil in the California market and see if alternate approaches might be appropriate. MMS contracted for a report that would analyze selected California crude values for four periods from 1980 to 1993. The Micronomics study employs California spot market prices for Alaska North Slope (ANS) oil for establishing the value of indigenous California crude oil. Using this marker, the report concludes that posted prices for California crude substantially understate the market value for this oil.

In fact, companies often compared posted prices to ANS prices. In its review of company records, the team observed a number of internal corporate analyses justifying purchases of California crude oil at prices above posting by comparing the alternative of purchasing ANS crude oil -- a readily available marginal supply. After adjusting for differences in quality and refinery yields, the companies could justify paying substantial premia over posting for California crudes and still be better off than having purchased ANS crude.[11]

[11]From the mid-1970's on, Sohio (later British Petroleum) was the principal supplier of ANS to the California market. Unlike Exxon and Arco, the other main producers of ANS crude oil, Sohio had no refineries in California. This forced the company to sell as much ANS crude oil in California as possible to avoid transporting it to the Gulf and East Coasts at great expense.

The Micronomics study uses an approach similar to the companies' methodology referenced above to conclude that posted prices for California crudes oils understate their market value. Although the team has agreed that this method should not be applied for royalty valuation purposes under MMS' 1988 oil valuation regulations, its use in prior periods remains a point of contention among team members. The differing points of view are discussed in detail in the recommendations section. Findings are discussed in section IV. B.(1).

H. Detailed Review of Long Beach Contracts--Boston, 9/95

In the fall of 1995, after reviewing the IIC report, the team elected to examine the Long Beach II records again in more detail. Especially given the company delays in the audit process, extended review of the Long Beach II records was thought to be a valuable addition to the overall investigation and an important supplement to the audit process.[12]

ANS crude could not be exported. While most major West Coast refiners had exchange contracts with Sohio, they also routinely purchased incremental supplies at spot prices (for more information, see Appendix 4).

[12]Several previous evaluations of the California pricing issue, including the MMS examination in 1986, the A.D. Little study for the IRS in 1987, the U.S. General Accounting Office report in 1988, and the two Interior Department Inspector General reports in 1991 and 1994, had not included inspections of the Long Beach II evidence. The Justice Department had access to these documents in 1989, but the extent of their review is not clear.

The primary intent was to determine the prevalence of purchases and sales at premia over postings. A secondary issue of concern was the fraction of all transactions constituted by exchanges and buy/sells. Five MMS/DOE representatives, including an MMS auditor, visited IIC in Boston to examine *Long Beach II* records retained by the firm. The author of the IIC report was available to locate records and help interpret them as necessary. The review took place over a three-day period.

The review began with Texaco, for which detailed records of transactions at each of its West Coast distribution points were available. The team examined virtually all the contracts for Texaco receipts and deliveries along the west side of the San Joaquin Valley for one month in 1989. The focus was on trades involving Midway Sunset crude oil and Texaco's use of its heated pipeline running from the San Joaquin Valley to San Francisco. The team then expanded the scope to include transactions involving Kern River crude oil on the east side of the San Joaquin Valley, and cross-valley trades of heavy crude made primarily for locational convenience. The largest of these trades involved Shell. While only one month was addressed in detail, most of the contracts, particularly the large exchanges, were longstanding "evergreen" contracts.

On the second day, part of the team turned its attention to Shell's activities. The focus was on 1984, the year of the IIC evaluation and audit review. Absent detailed distribution records on Shell's activities (requested but never obtained), the team examined Shell's sales and exchange contracts IIC had flagged in its report as premia-bearing in an attempt to validate IIC's findings.

While this review lasted only three days, the team has returned to the Long Beach II records numerous times for substantiating details. IIC has readily provided follow-up information for all inquiries.

The team's observations from this review have bearing on many facets of this report. Some of the more salient findings are discussed in Section IV.

I. Audit/Team Presentation of Work, 10/95

MMS auditors and interagency team members orally presented their findings to the Assistant Secretary for Land and Minerals Management (AS/LM) and the MMS Director in October 1995.

The team characterized its findings for Shell and Texaco. Both companies are large integrated oil companies in California. Substantial volumes of their oil production never reach an open market. Much of their production is exchanged or transferred internally to their refineries. Large amounts of oil are exchanged barrel-for-barrel between oil companies to save transportation costs. Rarely is it possible to trace Federal production past the first transfer between the companies' production and trading affiliates.

Texaco controls 60% of the heated pipeline capacity that serves the San Joaquin Valley.[13] It also operates a large crude oil blending business that mixes heavy crude with lighter crude, thus enabling the heavy crude oil to move through unheated pipelines. Texaco is the largest blender of crude oil operating in the San Joaquin Valley.[14] As a result of its blending business and pipeline operations, Texaco sells and purchases large volumes of crude oil to and from other companies. However, many of Texaco's transactions involve purchases and sales of other major companies' crude oil soley for the purpose of transporting the crude on Texaco's pipeline.

The team found that in contrast, Shell's crude oil transactions involve a much smaller volume of production. In 1984, Shell purchased about 13,500 barrels per day of California oil from other companies and sold virtually none of its California production (about 190,000 barrels per day).

The MMS oil valuation regulations utilize other arm's-length contract prices for production from the same field or area to establish value for oil that is not sold at arm's-length. Thus Texaco's large number of purchases and sales may provide important additional information to value production not sold at

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[13]When Texaco transports oil for another producer, Texaco purchases the oil and then sells it back to the party after transporting the oil.

[14]According to IIC, the blended stream sold at premiums "over posted prices, reflecting the market prices prevailing for Line 63 and ANS crude oils". (Line 63 is a common carrier pipeline transporting blended oil, much of which is sold on the spot market, from the San Joaquin Valley to Los Angeles.)

arm's-length. Shell's much smaller volume of arm's-length sales provides lesser but still important information to value non-arm's-length production.

The team also summarized the contracts it reviewed at IIC's office. Significant premiums were received for many of Texaco's outright purchases and sales and Shell's outright purchases.

MMS audit staff presented preliminary findings for their review of Texaco in 1989 and 1993 and for Shell in 1984. The auditors cited Texaco and Shell contracts where premiums were received above posted prices. Under MMS regulations, these volumes may be subject to additional royalties. The auditors believed they had found cases where premiums were involved in the oil contracts, but royalties were paid on posted prices. The auditors felt that the postings plus premia should have been used to value the crude for royalty purposes.

At the conclusion of the oral presentation, the MMS Director asked the team to propose a list of options to address the crude oil valuation issue for management's consideration.

J. Presentation of Options, 12/95

In response to the direction above, the team developed options based on the auditor's and team's findings to date and presented them to Interior Department management in December 1995. Potential collections associated with pursuing the options were estimated employing several approaches to valuing Federal crude oil. For some options, the analysis estimated year-by-year collections for unpaid royalties from 1978 forward in an attempt to quantify the level of unpaid revenues and their timing. Some team members felt this to be particularly relevant for use by the decision makers, especially considering the uncertain impact of the statute of limitations on collection of unpaid royalties and interest.

1) Timing and Level of California Royalty Collections

Potential collections for previously unpaid royalties follow the historical pattern of overall royalty collections. Prior to 1980, crude oil prices in the United States were low due to domestic price control regulations. In the period 1980-83 three changes sharply increased royalty collections:

- First, domestic crude oil controls were removed, initially for heavy oil, then for all crude. Removal of controls on heavy crude oil allowed oil prices to increase, as well as the resulting royalties from onshore California production. Removal of the remainder of the control structure affected lighter crudes and crude oil from the OCS.

- Second, prices worldwide doubled after the Iranian revolution in 1978-79.

- Finally, OCS production rose sharply between 1980 and 1982 after several high-volume OCS leases were put into production.

California Federal production volumes jumped from 26.4 million barrels in 1979 to 50.1 million in 1982, and increased another 4.5 million barrels by 1985. Total California Federal production then slowly declined through 1991 when several more large OCS producing fields came on-line (most notably, Point Arguello and additional developments in the Hondo field). The combined effect of higher production and rising prices increased Federal royalty collections in California from $39 million per year in 1979 to $222 million by 1983. Modest reductions in oil prices in 1984-85 reduced this level by about $50 million per year, and then the price deflation of 1986 essentially cut collections in half.

2) Timing of Royalty Underpayment Collections

The team's investigations indicate that royalty underpayments are related to the level of prices no matter which method of valuation is used. World oil prices rose sharply in 1980-81 and stayed relatively high until 1986. Prior to 1986, the team observed contract premia over postings in the $2.00 per barrel range; after prices fell in 1986, premia dropped under $1.00. Likewise, if California crude oil is valued in comparison to ANS crude oil (as suggested by the Micronomics report), the ANS-comparable values were higher prior to 1986. It follows that, since the late 1970's, potential collections for royalty underpayments would be highest for the years 1980-85, with the peak years being 1982 and 1983.

Interest has a substantial effect on potential Federal collections. While the estimated level of royalty underpayment depends on the method of estimating premia, the magnifying effect of interest due on uncollected revenues is proportionally constant. For example, the interest on unpaid royalties originally due in 1980 would be four times the unpaid royalty; by 1983, this drops to a factor of 2.5 times the underpaid amount. The interest on unpaid royalties in 1988 would about equal the amount due for the royalty itself.

When all these factors are considered, it becomes clear that a large portion of the potentially collectable unpaid royalties and interest accrue to the 1980-85 period no matter what method of valuation is used. Of the options discussed below, if either Option I (Micronomics' method of ANS crude-based valuation) or Option II (premia based on contract data from IIC's data base) are used, 74 percent of the total unpaid royalties and interest for the years 1978-93 would accrue to 1980-85. If Option III is considered (use of the auditors' estimates of contract premia), 63 percent would be associated with 1980-85. The years 1978-79 only contribute 6 to 10 percent, and the years 1986-93 constitute 17, 21 or 31 percent for Options I, II, or III, respectively.[15]

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[15]Note that while the team agreed to present these statistics, they do not agree on the statistics' importance for decision making purposes. Some team members believe the statistics are very important for deciding how far back to pursue potential royalty collections. Others believe that by themselves the statistics should not dominate this decision and that collection risk (as judged by Interior/Justice lawyers for each past period) and other impacts on RMP programs are the more relevant factors.

3) Options for Underpayment Valuation[16]

The team presented options to Interior Department management that ranged from the most aggressive stance of billing companies based on prices of ANS crude, to not billing for any past royalties and revising the MMS oil valuation regulations to address future collections. These options and the methodology for calculating potentially collectable royalties and interest are included as Appendix 3. A brief synopsis of each option follows:

Option I. California Crude Oil Valuation based on Alaskan North Slope Crude Oil Market Prices.

This option would use market prices for ANS crude oil delivered to Los Angeles to estimate the extent to which posted prices understate the California crude oil royalties MMS could have received. Using this method, the team calculated unpaid royalties and accrued interest could total $856 million for the period 1978 to 1993 inclusive. However, as stated above, this

[16] Estimates for the potential amounts collectable include volumes sold under MMS royalty-in-kind (RIK) procedures. RIK volumes were not considered in the original estimates. Since MMS sold RIK crude oil directly to refiners, no additional royalties are due from the producer on those volumes. The team has not investigated recoupment of additional revenues on RIK crude oil that might have been undervalued. The Department should consider the effects of RIK volumes in its decision making, including potential collections where these volumes were undervalued.

Also note that for each option where dollar estimates are given, a certain amount may not be collectable due to the MMS/Exxon settlement. Similar problems may exist for Chevron.

figure would be lower because RIK volumes were not included in arriving at this figure. Furthermore, settlements with Chevron and Exxon could reduce collections.

Option II. Apply Innovation & Information Consultants (IIC) Premia to All Royalty Production.

This option would apply the average premia above posting estimated for Shell and Texaco during the 1980's to royalty production of most of the major California producers. Using this method, the team calculated that unpaid royalties and accrued interest could total $280 million for 1978-93.

Option III. Apply premia estimated by MMS audit to all volumes of Federal crude produced by large royalty payers.

This method would apply the approach employed by MMS auditors to Texaco and Shell during this study. That is, either booked crude oil costs would be subtracted from booked sales revenues with transportation costs disallowed, or where these records are not available, average contract premia would be applied to all Federal royalty production. Using the premia developed by MMS auditors, collections under this option could total as much as $316 million.

Option IV. Assume that some fixed percentage of Federal production is sold at a premium and apply a selected premium to that volume.

MMS would assume that the lessee only received legitimate gross proceeds additions for some percentage of its production from Federal leases and apply a selected premium as in Option II or III to that volume. The percentage could be calculated, for example, by dividing the company's total sales and purchases at a premium by its total sales and purchases. This percentage could then be multiplied by (1) the selected premium and (2) production from each Federal lease to calculate royalties due by lease. Collection estimates ranged between $31.3 million and $83.2 million.

Option V. Bill additional royalties only for specific volumes where MMS audit demonstrates third-party sales by affiliate are at premium above posting--do company/lease apportionments based on field-level transactions.

This approach is similar to Option IV, but average premia would be based on specific field-level information to be developed by MMS auditors. No dollar estimates are provided here; until MMS audits demonstrate specific instances of affiliate sales at premia by field, any estimates would be speculative.